## We claim:

- 1. The use of a genetic modification in the gene for human G protein  $\beta 3$  subunit for the diagnosis of diseases.
  - 2. The use of a genetic modification in the gene for human G protein  $\beta 3$  subunit for establishing the risk of developing a disorder associated with G protein dysregulation.

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- 3. The use as claimed in claim 2, wherein the genetic modification is in the codon for amino acid 275 in SEQ ID NO:1.
- 15 4. The use as claimed in claim 3, wherein there is substitution of cytosine by thymine in position 825 in SEQ ID NO:1.
- The use as claimed in claim 2, wherein the disorder is a cardiovascular disease, a metabolic disturbance or an immunological disease.
  - 6. The use as claimed in claim 2, wherein the disorder is hypertension.
- 25 7. A method for establishing a relative risk of developing disorders associated with G protein dysregulation for a subject, which comprises comparing the gene sequence for human G protein β3 subunit of the subject with the gene sequence SEQ ID NO:1, and, in the event that a thymine (T) is present at position 825, assigning the subject an increased risk of disease.
  - 8. A method as claimed in claim 7, wherein the comparison of genes is carried out by sequencing.

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- 9. A method as claimed in claim 8, wherein a gene section which includes position 825 is amplified before the sequencing.
- 10. A method as claimed in claim 7, wherein the comparison of qenes is carried out by hybridization.
  - 11. A method as claimed in claim 7, wherein the comparison of genes is carried out by cleavage using restriction enzymes.
- 45 12. A method as claimed in claim 11, wherein the restriction enzyme Dsa I is used.

The use of a genetic modification in the gene for human G protein  $\beta 3$  subunit for the diagnosis of diseases

## 5 Abstract

The present invention relates to the use of a genetic modification in the gene for human G protein  $\beta 3$  subunit for the diagnosis of diseases.